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Beveridge DeGrandi Weilacher & Young LLP  
Suite 800  
1850 M Street NW  
Washington, DC 20036

EXAMINER

SELBY, GEVELL V

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 12/18/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/667,424

Applicant(s)

SOGAWA, YOSHIYUKI

Examiner

Gevell Selby

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: .

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

The preamble of claims 1-9 claim "a structure for mounting a stereo camera", but the body of the claims claim the limitations of a stereo camera. The bodies of the claims are outside of the scope of "a structure for mounting a stereo camera" and would not allow any person skilled in the art to make the invention. The preamble must be changed to encompass the claimed limitations. For examining purposes, the preamble will be changed to "a stereo camera apparatus".

### *Double Patenting*

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

**4. Claim 5, which I dependent on claim 1, is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 31, which is dependent on claim 22, of copending Application No. 09665950. Although the conflicting claims are not identical, they are not patentably distinct from each other because:**

Claim 5 with claim 1 incorporated therein claims a structure for mounting a stereo camera comprising:

a main camera taking photograph of an object in a shooting direction; and  
a sub-camera taking photograph of said object from a point of view  
different from a point of view of said main camera,  
said main camera and sub-camera being disposed with a predetermined  
spacing in a direction substantially perpendicular to the shooting direction,  
wherein optical axes of said main camera and said sub-camera are inclined  
toward the main camera side with respect to the shooting direction between said  
main camera and said sub-camera, and  
a camera stay for mounting said cameras thereon, wherein a longitudinal  
direction of said camera stay is substantially perpendicular to the shooting  
direction.

Claim 31 with claim 22 incorporated therein claims a structure for mounting an onboard sensor, comprising:

a sensor for monitoring traffic conditions ahead of a vehicle;  
a sensor assembly for assembling said sensor; and  
a mounting member formed independently of said sensor assembly,  
wherein said sensor assembly is attached to a vehicle body via said mounting member, and a monitoring direction of said sensor is determined based on the shape of said mounting member,  
wherein said sensor assembly is a stereo camera assembly.

It is obvious that both claims are for a stereo camera attached to a mount to take pictures of objects directly in front of the cameras.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1, 2, 3, 4, 5, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Miura et al., US 4,879,596.**

In regard to claim 1, Miura et al., US 4,879,596, discloses a stereo camera apparatus (see figure 5) comprising:

“a main camera taking photograph of an object in a shooting direction (see figure 4, element 20a and column 3, lines 8-9); and

a sub-camera taking photograph of said object from a point of view different from a point of view of said main camera (see figure 4, element 20b and column 3 lines 8-9),

said main camera and sub-camera being disposed with a predetermined spacing in a direction substantially perpendicular to the shooting direction (see figure 2, elements 20a and 20b and column 1, line 63- column 2, line 5),

wherein optical axes of said main camera and said sub-camera are inclined toward the main camera side with respect to the shooting direction between said main camera and said sub-camera (see figure 4B, direction E and column 5, lines 38-44).”

In regard to claim 2, Miura et al., US 4,879,596, discloses the structure the stereo camera apparatus as recited in claim 1, “wherein angles of inclination of said main camera and said sub-camera are set to be such angles that make an area substantially left-right symmetric with respect to a central axis of a vehicle parallel to the shooting direction, said area being an area of three-dimensional distance distribution obtained on the basis of images photographed by said cameras (see figure 6, elements 20a and 20b).”

It is inherent that if axis z were aligned with the central axis of a vehicle the two cameras would be left right symmetric.

In regard to claim 3, Miura et al., US 4,879,596, discloses the stereo camera apparatus as recited in claim 1, “wherein the optical axis of said sub-camera is inclined

toward said sub-camera side with respect to the optical axis of said main camera (see figure 4B, direction F and column 5, lines 38-44)."

In regard to claim 4, Miura et al., US 4,879,596, discloses the stereo camera apparatus as recited in claim 2, "wherein the optical axis of said sub-camera is inclined toward said sub-camera side with respect to the optical axis of said main camera (see figure 4B, direction F and column 5, lines 38-44)."

In regard to claim 5, Miura et al., US 4,879,596, discloses the stereo camera apparatus as recited in claim 1, further comprising:

"a camera stay (see figure 2, element 24) for mounting said cameras thereon, wherein a longitudinal direction of said camera stay is substantially perpendicular to the shooting direction (see column 3, lines 9-12)."

In regard to claim 8, Miura et al., US 4,879,596, discloses a stereo camera apparatus (see figure 2) "which has a main camera (see figure 2, element 20a) and a sub-camera (see figure 2, element 20b) taking photograph of a common object in a shooting direction from different points of view and being disposed with a predetermined spacing in a baseline direction substantially perpendicular to the shooting direction (see figure 6, element 1), said stereo camera apparatus identifying a correlated destination of a first image photographed by said main camera within a second image photographed by said sub-camera and then calculating a parallax of said first image (see column 1, lines 15-37), wherein optical axes of said main camera and said sub-camera are inclined toward said main camera side with respect to the shooting direction between said main camera and said sub-camera (see figure 4B, direction E and column 5, lines 38-44)."

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miura et al., US 4,879,596, in view of Lipton et al., US 5,063,441.**

In regard to claim 6, Miura et al., US 4,879,596, discloses the stereo camera apparatus of claim 1, but lacks CCD cameras. Lipton et al., US 5,063,441, discloses a stereo video camera apparatus wherein both cameras are CCD cameras (see column 5, lines 27-31). He uses CCD cameras because most, if not all, future video cameras would incorporate some form of solid-state sensors.

It would have been obvious to a person skilled in the art, at the time of invention, to modify Miura et al., US 4,879,596, in view of Lipton et al., US 5,063,441, to have CCD cameras in order to update the camera system with a most modern technology.

9. **Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miura et al., US 4,879,596 in view of Saneyoshi et al., US 5,410,346.**

In regard to claim 7, Miura et al., US 4,879,596 discloses the stereo camera apparatus of claim 1 but lacks "wherein said cameras are mounted in the vicinity of a rear-view mirror of a vehicle, said cameras taking photographs of views outside the



vehicle.” Saneyoshi et al., US 5,410,346, also discloses a stereo camera apparatus (see figure 2, element 10) comprising:

“a main camera taking photograph of an object in a shooting direction (see figure 2, element 11a and column 7, lines 40-51); and

a sub-camera taking photograph of said object from a point of view different from a point of view of said main camera (see figure 2, element 11b and column 7, lines 40-51),

said main camera and sub-camera being disposed with a predetermined spacing in a direction substantially perpendicular to the shooting direction (see figure 2, elements 11a and 11b and column 7, lines 40-51),”

“wherein said cameras are mounted in the vicinity of a rear-view mirror of a vehicle, said cameras taking photographs of views outside the vehicle (see figure 1 and figure 2)”.

Saneyoshi et al., US 5,410,346, lacks the limitation wherein optical axes of said main camera and said sub-camera are inclined toward the main camera side with respect to the shooting direction between said main camera and said sub-camera.

It would have been obvious for a person skilled in the art, at the time of invention, to modify Miura et al., US 4,879,596, in view of Saneyoshi et al., US 5,410,346, to have cameras are mounted in the vicinity of a rear-view mirror of a vehicle, said cameras taking photographs of views outside the vehicle in order to monitor the conditions in front of the car.

In regard to claim 9, Miura et al., US 4,879,596, in view of Saneyoshi et al., US 5,410,346, discloses the stereo camera apparatus as recited in claim 8 as described above, “wherein an acute angle defined between said optical axis of said main camera and the baseline direction is larger than an acute angle defined between said optical axis of said sub-camera and the baseline direction (see Miura: column 3, line 58 to column 4, line 10).”

It is obvious that since both cameras can be adjusted freely in the horizontal direction, the sub-camera can be pivoted more than the main camera so that the main camera has an acute angle larger than the sub camera. To make the cameras adjustable is not a patentable advance. In re Brandt, 20 C.C.P.A. (Patents) 1005, 64 F.2d 693, 17 USPQ 295.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following art discloses a camera apparatus mounted in a vehicle:

Yokoyama, US 4,926,346

Asayama, US 5,424,952.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 703-305-8623. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on 703-308-6613. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

gvs

  
VU LE  
PRIMARY EXAMINER